

7 data, wherein the embedded coder produces coded data prior to receiving all  
8 the series of coefficients.

1 24. (New) The encoder defined in Claim 23 wherein the transform  
2 coder and the embedded coder operate to generate coded data from the input  
3 data on a single pass through the data.

#### REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1-21 remain in the application. Claims 1, 4, 6, 8, 11-13, 17, 18, and 20 have been amended. Claims 2, 3, 9, 10 and 14 have been canceled. Claims 22-24 have been added.

The Examiner rejected Claim 17 under 35 U.S.C. §112, first paragraph. Applicant has amended Claim 17 to overcome the objection. In view of the amendment, Applicant respectfully requests the Examiner to withdraw the rejection.

Applicant has amended the claims, particularly to overcome the Examiner's rejection of indefiniteness under 35 U.S.C. §112 and to more clearly distinguish the invention from the prior art cited. The Examiner initially rejected claims 17, 18 and 20 under 35 U.S.C. §112, second paragraph. Accordingly, Applicant has amended claims 1, 4, 6, 8, 11-13, 17, 18 and 20 to particularly point out and distinctly claim, in full, clear, concise and exact terms, the subject matter which Applicant regards as his invention.

The Examiner rejected Claims 1, 2, 5, 7-9 and 12 under 35 U.S.C. §103 as being unpatentable over Reusens, et al. Applicant respectfully submits that the present invention is not obvious in view of Reusens. The present invention provides for applying an overlapped reversible wavelet transform

to input data using non-minimal length reversible filters to produce a series of coefficients. As indicated by the Examiner, this is not shown in the Reusens reference. Overlapped transforms using longer (non-minimal length) filters can provide better energy compaction. This is clearly not disclosed in Reusens. Therefore, Applicant respectfully submits that the present invention as claimed is not obvious in view of Reusens.

The Examiner rejected Claims 3, 4, 6, 10 and 11 under 35 U.S.C. §103 as being unpatentable over Reusens in view of Shapiro. The Applicant believes that Shapiro shows the minimal length filters as set forth on page 23, lines 10-11 of the application. Applicant has amended page 23 to set forth that the minimal length filters described therein are those for implementing the S transform, and that the present invention provides non-minimal length filters which are not shown in Shapiro. Therefore, in view of this and in view of the above, Applicant respectfully submits that the present invention as claimed is not obvious in view of Shapiro.

The Examiner rejected Claims 1, 2, 5, 7-9 and 12 under 35 U.S.C. §103 as being unpatentable over Reusens in view of the Langdon, Jr. Langdon does not show use of a pair of non-minimal length reversible filters to perform an overlapped reversible wavelet transform. Therefore, Applicant respectfully submits that the present invention as claimed is not obvious in view of Reusens and Langdon.

The Examiner rejected Claims 13-17 and 19-21 under 35 U.S.C. §103 as being unpatentable over Shapiro in view of Hartung, et al. Applicant respectfully submits for the same reason given above, the present invention as claimed is not obvious in view of Shapiro and Hartung.

Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. §112 and §103 have been overcome by the amendments and the

remarks and withdrawal of these rejections is respectfully requested.

Applicant submits that Claims 1, 4-8, 11-13, 15-21 as amended and Claims 22-24 as added are now in condition for allowance and such action is earnestly solicited.

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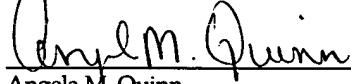
Respectfully submitted,  
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on February 27, 1997.

  
Angela M. Quinn February 27, 1997  
Date